

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-132 (cancelled)

133. (new) A plasmid comprising a heterologous *pir* gene having at least one mutation in the *pir* gene leucine zipper-like motif or the *pir* gene DNA binding region.

134. (new) The plasmid of claim 133, wherein the heterologous *pir* gene comprises at least one mutation in the *pir* gene leucine zipper-like motif.

135. (new) The plasmid of claim 134, further comprising a mutation in the *pir* gene DNA binding region.

136. (new) The plasmid of claim 133, wherein the heterologous *pir* gene comprises at least one mutation in the DNA binding region and the leucine zipper-like motif.

137. (new) The plasmid of claim 133, wherein the mutation in the DNA binding region is the 114C mutation.

138. (new) The plasmid of claim 133, wherein the mutation in the DNA binding region is the 100B mutation.

139. (new) The plasmid of claim 133, wherein the mutation in the DNA binding region is the 201C mutation.

140. (new) Cell line XAC1*pir*116.

141. (new) A prokaryotic recombinant host cell comprising a heterologous *pir* gene encoding a π protein and a DNA molecule comprising a heterologous gene encoding a protein, a selection gene, a target region for a site-specific recombinase,

and a conditional origin of replication whose functionality in a prokaryotic host cell requires a π protein, wherein the heterologous *pir* gene comprises at least one mutation in the *pir* gene leucine zipper-like motif or the *pir* gene DNA binding region.

142. (new) The prokaryotic recombinant host cell of claim 141, wherein the heterologous *pir* gene comprises at least one mutation in the leucine zipper-like motif.

143. (new) The prokaryotic recombinant host cell of claim 142, further comprising a mutation in the *pir* gene DNA binding region.

144. (new) The prokaryotic recombinant host cell of claim 141, wherein the heterologous *pir* gene is in a plasmid.

145. (new) The prokaryotic recombinant host cell of claim 141, wherein the heterologous *pir* gene is in the genome of the host cell.

146. (new) The prokaryotic recombinant host cell of claim 141, wherein the mutation in the DNA binding region is the 114C mutation.

147. (new) The prokaryotic recombinant host cell of claim 141, wherein the mutation in the DNA binding region is the 100B mutation.

148. (new) The prokaryotic recombinant host cell of claim 141, wherein the mutation in the DNA binding region is the 201C mutation.

149. (new) A method for detecting a plasmid copy-up mutation comprising:

- (a) introducing at least one mutation into a target sequence;
- (b) transforming the mutated target sequence into a host cell comprising a plasmid, wherein the plasmid comprises a nucleotide sequence encoding uroIII methyltransferase and the copy number of the plasmid is effected by the target sequence;

- (c) growing the host cell under conditions wherein the nucleotide sequence is expressed to produce a culture of host cells;
- (d) exposing the culture of host cells to UV light; and
- (e) detecting fluorescence produced by the culture of host cells.

150. (new) The method of claim 149, wherein the nucleotide sequence is the *cobA* gene from *Pseudomonas denitrificans*.

151. (new) The method of claim 149, further comprising comparing the fluorescence detected in (e) with fluorescence produced by a culture of host cells comprising an non-mutated target sequence.